

INTRODUCTION

This section of the Users Manual was specifically created to help higher education faculty prepare to teach their EDNET courses. It includes information in the following areas:

- Available Training Sessions for Educators
- The Distance Learning Environment
- About Your Distance Learning Students
- Putting together a Course Reader/Extended Syllabus
- Interaction and Instructional Strategies
- Using the Internet to Support Your Course
- Using Graphics in Your Course
- Wardrobe
- Using the EDNET Course Creator CD-ROM
- Useful Articles

Further information can be had by examining Section II of this manual.

EDNET Training Courses for Higher Education Faculty

EDNET Higher Education Faculty Training Course

The EDNET Training Course for higher education faculty is an 8-hour course which includes technical training by the college or university's EDNET support personnel, the EDNET Faculty Training Presentation (see below), and the presentation of a mini-lesson. This training can be conducted over many days and is not limited to a particular number of participants.

EDNET Higher Education Faculty Training Presentation

This two-hour presentation covers elements of course preparation, interaction strategies, course management, and course adaptation for higher education faculty. It is designed to be used in conjunction with the training efforts of the higher education institution, but can stand alone. There are no limits to the enrollment on this presentation. Training can be scheduled by contacting the EDNET Trainer.

EDNET Concurrent Enrollment Training Presentation

A required part of faculty training for all concurrent enrollment instructors, this 45-minute presentation by the USOE EDNET Faculty Training Specialist covers all the information higher education faculty need to know about course presentation when high school credit is being granted for her/his EDNET course. This presentation can be scheduled by contacting the USOE Faculty Training Specialist. There is no limit to presentation enrollment.

Also available for interested faculty is the
EDNET Public Education Faculty Training Course.

EDNET's primary faculty training course presents the foundation information teachers need in order to prepare to teach courses over the state's interactive video network, EDNET. Content of the course includes an introduction to the EDNET technology and an overview of distance learning issues dealing with course design, course management, materials preparation, presentation strategies, interaction strategies, and copyright. The culminating experience of the course is a mini-lesson taught by the participants over EDNET which lasts 5-10 minutes.

This 20-hour certification course in two-way interactive video instruction is available to all new secondary EDNET instructors and interested higher education and ATE faculty. Training courses can be scheduled as needed by the USOE EDNET Faculty Training Specialist or the EDNET Trainer. Enrollment of at least 2 instructors is required for each training course and there is a limit of twelve instructors per course.

ABOUT THE DISTANCE LEARNING ENVIRONMENT

Teaching a technology-delivered course is a new experience for many instructors. It is important to know a couple of things about the environment in which they will be teaching.

Four main methods of teaching technology-delivered courses are utilized as a part of the Utah Education Network: TV courses (a.k.a. telecourses), EDNET courses (a.k.a. videoconferencing or two-way video and audio courses), satellite courses (one-way video and two-way audio), and Internet courses. All of these, some of these, or only one of these could be used to teach a course. Each places certain limits on what instructors can do and each opens doors to greater things instructors can accomplish.

This manual is primarily concerned with EDNET-delivered courses. Instructors teaching EDNET can see and hear students at EDNET sites throughout the state. Audio is available at any time in an event, but is only heard when students turn on their microphones. The video from only one site attached to a course can be

seen at a time. The process of changing which site is seen is called 'switching.'

ABOUT THE DISTANCE LEARNING STUDENT

Students participate in EDNET courses because of ease of access and the removal of the need to travel to participate in a course. High school students take concurrent enrollment courses in order to obtain courses they could not otherwise obtain and to get college credit. Most students would probably prefer to be taking the class from an instructor present in their school and would do so if they had the option. Traditional instruction is generally considered of higher quality (though learning outcomes are similar between traditional and TDI courses) because of the quality of the interaction and the humane-ness of taking a class from a present instructor. Students taking distance learning courses are grateful for the opportunity to do so, but they have certain expectations of the their technology-delivered course. They expect to learn the same things as their on-campus counterparts, they expect to be treated as mature individuals, and they expect the technology not to get in the way of instruction.

Students in distance learning courses tend to need more overt feedback than their on-campus counterparts. Answers to questions in class, for example, can take longer in a TDI course than in the traditional classroom. Students in the face-to-face class have a variety of non-verbal and auditory cues that let them know the teacher understands them. Students in distance learning courses generally do not and so speak longer to make sure they are understood. Students in distance learning courses revel in their anonymity at times, but also lose out on the care that instructors lavish upon those they 'know.' Some students can monopolize the distance learning environment because the environment lends itself to one-on-one interaction more than one-to-many. The instructor must be cognizant of the fact that student dynamics may or may not effect the learning gained from the course, but will definitely impact the satisfaction the course brings to the students.

COURSE READER/EXTENDED SYLLABUS

The Course Reader or Extended Syllabus is perhaps the most important document that will be associated with your class. Sharon Smaldino from North Dakota stated at a recent conference that the Course Reader should be a printable or printed document. Students should know and understand what being a part of your distance learning course entails. The Course Reader can be placed on the Internet, but knowing that technology often fails, allowing students to print the manual can be very important to the success of the Course reader as a student tool.

The Course reader should include the following items which will be discussed in detail below:

- Instructor Information
- Course Objectives
- Daily/Weekly Guide to Activities/Instruction
- Assignment Details
- Grading Information
- Course Testing and Evaluation Information
- Contact Information for People at Your Institution
- Contact Information for EDNET Personnel
- Information on how to obtain course materials and technology
- Materials Distribution Information

Additional information about these items can be found in the Public Educator section of the EDNET Users Manual.

While most of these items seem to be self-explanatory, there are details specific to teaching at a Distance which should be addressed by the syllabus in each of these areas that instructors need to provide to their students that is not normally included in a syllabus.

Instructor Information

Getting in touch with the instructor is one of those items which distance learning students need help doing. For the traditional student, the instructor is available in most cases before and after class and within a reasonable distance at any time. Students taking the course at a distance, however, need to know phone numbers, office hours, e-mail addresses, and the method preferred by the instructor for contact.

Because watching television is a passive pursuit and for other reasons, many of the students participating in a class via EDNET or other technologies may not be inclined to communicate with the instructor. Having input from those students, however, is important to the success of the class. In the traditional classroom, the instructor receives a number of auditory and other non-verbal cues as to the success of instruction. Distance Learning environments do not provide that feedback. Instructors can set up a schedule of times when particular students should conference with the instructor or a schedule of e-mail postings which the instructor can use to gain feedback on any number of instructional items.

Course Objectives

While all colleges and universities require some sort of objectives statement to be included in their syllabi, distance learning instructors need to know that the information included in this section is non-violable. You cannot do less in your course than you have stated in your objectives if you, your institution, and distance learning are to remain

credible purveyors of instruction in the eyes of students.

Many first-time instructors and those instructors who have taught at a distance and have not adapted their materials to teaching at a distance despite their experiences in their course find themselves not covering all the material they intended to cover in their course. There are a number of reasons for not covering all the material that the instructor intended to cover, but the fact remains that oftentimes between 15-30% of a course can be lost in this environment.

When a student finds him/herself lacking fundamental knowledge that should have been covered in a course, all distance learning instructors and institutions lose face.

Another item of import concerning objectives is testing and evaluation of students to verify understanding. This will be discussed in the testing and evaluation section.

Daily/Weekly Guide to Activities/Instruction

Perhaps the biggest difference between the standard syllabus and the Course Reader/Extended Syllabus is the detail used to describe what will happen in each class and what the student needs to accomplish. Originally the need for great detail and specificity in describing what would happen in class, what the students needed to do to prepare for the class, and the activities that would result from the class was important because the technologies used in transmitting courses was still developing and frequently failed. When as many as 5-7 days of a class could be lost due to technology outages, preparing materials that allowed students to self-direct their instruction was very important. As time passed, however, it became clear that the method of organizing the class into discreet units that had other advantages.

Perhaps the greatest advantage of having instructions for the student to follow allows the instructor to comfortably change course in the middle of a presentation or to devote time to a particularly troublesome or interesting topic. Without a detailed set of instructions, classes easily fall behind when extra time is devoted to a particular topic. If the materials are designed to help the student direct their learning outside of the classroom, the instructor can be free to use the class time in any way s/he chooses; the students have at their fingertips the resources necessary to finish learning material that was not presented and the class does not fall behind.

Because of the fluid nature of the traditional classroom, there is a lot of leeway for adaptation and change. In the distance learning environment, however, the ability to adapt and change is based upon a firm base of solid organization.

Assignment Details

Following the lead mentioned above about providing detail to help the student acquire information, the instructor of a distance learning course also must provide instructions about assignments, projects, papers and exams. Previously the topic of student attitudes and behaviors talked about the fact that distance learning students tend to talk longer than their traditional classroom peers. Those same students also spend an inordinate amount of time verifying the requirements associated with assignments.

An example would be the assignment of a five-page paper. Students could (and in many cases have) asked what font should be used, if the instructor wants 5 pages front and back (10 total), any number of questions about content and grading, whether the paper should be turned in by fax, e-mail attachment, or mail, and many similar questions. Such questions can turn a one-minute mention of an assignment into a five-minute discussion. It doesn't take many such discussions to steal days from a class.

Another item of import is the timing of assignments. How many assignments are typically given in a course? Why that number exactly? Can that number of assignments be accommodated given the manner in which materials are distributed in your course? Will you have time to grade a weekly paper from 125 students (this was the dilemma of one instructor of a first-year writing course)? Detailing how the students will receive feedback from their assignments in time to take advantage of the feedback in their tests and projects is very important.

Grading Information

Another item that appears in typical syllabi, the only item of importance concerning this is that grading structure be clearly presented. If the manner in which tests and assignments are graded is not understandable to the students, they will have to use class time to gain understanding of what will happen to them as a result of success or failure on assignments. This is time that costs instructors a lot of presentation time in the distance learning environment and costs them the attention of the students not involved in the question.

Course Testing and Evaluation Information

Testing and evaluation serve to evaluate two items, instruction and learning. Most instructors have tests, papers, or projects that they have used for a number of years to evaluate student performance. Those items have proven their worth in evaluating the instructional means the instructor has used to determine the success of his/her course. Once those items make their way to the distance learning environment, however, the efficacy of the instruction might not be adequately

measured by the stand-by testing instruments. Because of this testing needs to be looked at carefully. Once done, the exact parameters of the student tests must be laid out in the syllabus so that students can devote the needed time to preparing for the examinations.

Another item that must be examined in testing is how quickly feedback can be given to students so that feedback can make an impact on learning. Students can, for example, keep copies of their responses to multiple choice questions and evaluate their answers the following day or from a posting to a web site. Essays that need to be graded should not be used for instruction until all the students have their graded responses. Projects presented to the class as a final exam may have to be taped and reviewed by the instructor instead of being presented to the class.

One concept of change theory that is useful for understanding the importance of course evaluation is that of the "change window." The change window is that period of time when a person is amenable to making changes and where change can occur. All distance learning instructors will go through the change window at least once while preparing and teaching their courses. In this time period they will have realized that some of their techniques aren't working in the new environment and will look at other alternatives. Unfortunately, what often happens is that they lack the information necessary to make productive the discomfort they may have felt when they realized some things would have to change. Because of the lack of substantive feedback from students and interaction with trainers or other more experienced faculty, many instructors actually regress instead of progressing. One of the reasons the talking head is so prevalent in instructional television is that it is a default stance of those who reached a change window and had insufficient resources to make their instruction better fit the medium.

Preparing in advance for the change window can be done by designing evaluations that take place not only at the end of the quarter (often the window is closed by then and habits are built in), but at two weeks into the quarter and at midterm. It is possible for those evaluations to be done by the students, by fellow faculty, or by Utah Education Network trainers and that feedback given to the instructor. This feedback can be used to adapt the course delivery and work with proven methods of dealing with specific instructional issues that may not have been dealt with previously by the instructor.

Contact Information for People at Your Institution

One item often overlooked in the syllabus is contact information for campus entities. Students on campus have easy access to counselors, the registrar, advisors, computer support, and the library personnel.

Distance students do not. Because of that the instructor needs to gather pertinent information for the students. The instructor becomes to many distance learning students all that is the college or university and so they ask her/him questions to which most instructors haven't got an answer. Once again, taking time in class to answer these questions is a waste of a valuable resource. Having the answer in the syllabus allows the instructor to devote class time to instruction.

Contact Information for EDNET Personnel

Because the distance learning instructor is running an educational team that consists of technicians on site and remote site facilitators at the other sites, the students have some other people that they may occasionally need to contact. The instructor, too, should be on contact with these people for a number of reasons. The technician onsite can provide valuable insight into how technology can do many of the things the instructor would like to do in class and can facilitate experimentation. The remote site facilitators hear everything that goes on in the remote classroom while the instructor only hears what students say when they turn on their microphones. Also the remote site facilitators have access to school resources students may not have available to them which the instructor could utilize to make instruction more effective.

The EDNET Web Pages have contact information for site coordinators, administrators, and facilitators of the sites throughout the state. Look there to assemble this list.

Materials Distribution

One of the biggest difficulties with the technology-delivered instruction is the delivery of materials. This includes getting to and from the students syllabi, assignments, exams, lab materials, graded assignments, and anything else they need to get from or send to the instructor. In some areas of the state mail takes seven days to arrive. Many syllabi are too long to fax effectively to sites. There are still numerous problems with e-mailing attachments, and web services are available in most schools, but not all homes. Planning this element of a class can make the difference between a miserable experience for instructor and student and a wonderful experience.

One element of materials distribution that is important is the stating of what technologies will be utilized in the course when the course is publicized. Instructors at colleges and universities often overestimate the level of wired-ness of their students. Making clear up front what will be expected of the students will allow the instructor to screen students based upon technology and allow them to utilize the materials they developed for their instruction. If the instructor does not do this, the

class will have to be handled in a way which caters to the most ubiquitous, and often slowest, forms of technology. This seriously hampers that learning progress that can be made in the course as well as be a waste of time form the instructor who redesigned his/her materials for the new environment.

INTERACTION AND INSTRUCTIONAL STRATEGIES

Interacting with students is not an easy thing at a distance. Open-ended questions or general questions addressed to what is essentially an anonymous audience generally results in very little feedback and can be disconcerting to an instructor used to having a lot of interaction in the class.

Some tips to help make interaction happen.

- 1) Ask specific individuals to answer questions. Seating charts, randomly sorted card stacks with student names, memorization of names and sites can help to make interaction happen more smoothly.
- 2) Monitor students who are prone to answer every question and make sure they don't dominate discussion times; other students will tune out the discussion.
- 3) When asking for questions from sites, have the technician switch to each site. When the students can be seen, then ask them if they have any questions.

Interaction is inherently interesting if it pertains to the topic at hand and if each student knows they may have a chance to participate. When a student realizes s/he has little chance to participate in an interaction and understands through experience that the likelihood of pertinent information coming from the interaction (students who monopolize discussion, for example, rarely ask questions the group as whole will find relevant) will tune out the discussion.

Some instructional strategies that work well in the TDI environment are noted as follows:

- 1) Break up the flow of the class about every 5-10 minutes with a different media, camera shot, interaction, or activity.
- 2) Don't simply lecture to the students.
- 3) Let the class focus on refining material studied from the class resources, not simply on disseminating information more easily had from the text.
- 4) Use activities and projects to teach materials using problem-based approaches.

- 5) Outline the responsibilities of the individuals in group projects taking advantage of the typical responses by individuals (leader, blocker, facilitator) to group work.
- 6) Answer person-specific (as opposed to questions the whole class is interested in) outside of class.
- 7) Used Advance Organizers and other methods of reinforcing scaffolding of information.

USING THE INTERNET TO SUPPORT YOUR COURSE

The Internet is a great resource for distance learning students. The following are items that can be used to help students accomplish their tasks as students in your course.

- 1) Place your syllabus online.** While it is important for the students to have a hard copy of the syllabus (it's easier to read in the tub), having a place where the students can go online to verify information is very important. Also, it's possible to update a syllabus on-line more easily than it is to disseminate print changes. Students can then print and retain changes to the course. This brings additional flexibility to a course.
- 2) Use E-mail and Listserves.** E-mail is a quick one-to-one communication form. Listservs are a one-to-many. the nice thing about them is that the message comes to the student. they don't have to hunt for it in a bulletin board or other location on the web site. And with the ability to embed URL's in e-mail allows them to go directly to the spot of new information or a change in the on-line syllabus.
- 3) Bulletin Boards and threaded Discussion Groups.** Probably the most useful tool for the distance learning instructor. Bulletin boards can be the place to have students ask questions which may or may not apply to the whole group. In this way you can respond once and students can look up the answers. This can prevent an overflowing of e-mail on one particular subject and and can keep students from being confused by slight variations in the instructor's answers to questions.
- 4) Desktop Video Conferencing Tools:** Netmeeting and CUSeeMe can be used to communicate to students using the Internet to keep the costs of phone conversations down. These software packages allow the user to talk, chat, share applications, and (if desired) see each other. The latter function does not have to be employed to use the other three.
- 5) Internet Chat.** There are a number of places on the Internet where students can congregate to discuss items important to the class.

Communication is type-written and can be monitored or not by the instructor. Rules for chats should be set up before using them in a class.

6) Internet libraries and reference materials. The Utah Education Network provides access to Internet collections of periodicals through *pioneer.uen.org*. The pioneer project can help students perform research on academic periodicals, popular magazines, and newspaper archives. This resource is available in public schools, universities and colleges, and libraries. It is not available at students' homes at this time.

One thing that should be noted about using the Internet. Web pages make for generally poor presentation materials. Most sites are designed to be read from two feet away. Placing the small fonts typically found on a web page on a television makes them unreadable. See the graphics instructions below for more information about visuals.

GRAPHICS INSTRUCTIONS

The most important thing to remember about graphics used in your distance learning course is that they must be easily read. There is extensive material about graphics in the Public Educator Section of the Users Manual. For that reason, the examples on the next two pages are the only ones provided here:

SOME GRAPHICS TIPS FOR YOU

- Use Sans Serif Fonts
- Check Colors and Graphics Over the System
- Only One Theme Per Graphic
- Don't Clutter the Screen

A GRAPHICS EXAMPLE FOR YOU

- No More than **Six Words** for Every **Line** That You Have
- No More than **Six Lines** for Every **Page** that You Have
- Use 36-Point Fonts or Bigger

WARDROBE

Wardrobe is an interesting part of teaching at a distance. Generally the instructor needs to avoid high contrast colors like black and white, tight patterns of stipes, plaids, or herringbone, and any item of jewelry that can be distracting. Dangling earrings are a good example of distracting jewelry.

The object of wardrobe is help the instructor be watchable on the screen, not to be distracting. Paying attention to one's clothing can help portray a competent, video savvy image or the image of a person not comfortable in their environment.

Ideal items to wear are pastels, khaki, and other such benign colors. Students watching video, however, also like clothing that helps them get to know their instructor. Items of clothing with personality can be used, but should be tried out before actually being worn in class.

Courseware Toolkit

The Courseware Toolkit is an on-line tool for developing a web presence and web syllabus for distance learning courses in any of their manifestations or for regular classroom courses. When Using the Toolkit, the following information should be included in the content section:

Extended Syllabus/Course reader

- Assignment Information
- Instructor Contact information
- Campus Contact Information
- Course Information
- Course Evaluation
- Daily Schedule
 - Activities
 - Interaction Strategies
 - Instructional Strategies
- Grading Standards
- Materials Distribution Information
- Taping procedures
- Testing Procedures and Standards
- Facilitator Contact information
- Media Information
- Copyright
- Media Lists
- Media Production Lists
- Wardrobe

The Toolkit may be accessed by all UtahLINK-registered educators at www.uen.org/toolkit on the Internet.

CRITERION FOR PAYMENT OF STIPEND FOR ATTENDANCE IN EDNET HIGHER EDUCATION FACULTY TRAINING

EDNET currently offers a \$50 dollar stipend for faculty who attend approved EDNET training sessions. The following criterion apply:

1. The instructor must be going through EDNET Faculty Training for the first time.

2. Training conducted must include the following:

A) Technical Training on the use and operation of the equipment the instructor will use to teach his/her course.

B) Content Training which includes information on:

- Administrative Support for the Course
- Assignment Adaptation for Distance Learning
- Communication of course pre-requisites (Both Academic and Technological)
- Copyright
- Course Evaluation (Formative and Summative)
- Extended Syllabus/Course Reader--Content and Deadlines
- Managing Instruction
- Materials Distribution (Time Frame and Mechanisms)
- Materials Production (Is there a Faculty Assistance Center/Program? How is it accessed?)
- Taping Procedures
- Testing Adaptation for Distance Learning
- Using Facilitators Effectively
- Wardrobe

3. An EDNET representative (Zach Tippetts or Claire Gardner) should be present during presentation of Content Training.

4. The faculty member or institution trainer will submit to EDNET a completed stipend contract, invoice, and a video tape of the mini-lesson. A letter stating that the mini-lesson has been completed to the satisfaction of the institution trainer can be submitted in place of the tape.

THE 21ST-CENTURY PROFESSOR -- BAILING OUT OF THE IVORY TOWER

John R. Hoyle and Glenn R. Johnson

The twenty-first century will need a new, improved professor-one who will become an important resource for innovation and problem solving in the community.

Professors have an image problem. To Hollywood, they're "absent-minded" or "nutty." or they're uncreative and boring-not innovative and visionary. Students seldom celebrate professors for futuristic, creative teaching. And to business leaders, public-school officials, and others, professors are unrealistic and eccentric theory-mongers who can't make it in the real world.

Professors are rarely seen as being on the cutting edge of critical issues. When an educational, corporate, or social problem needs solving, a professor is not the first one consulted. Most people still think of professors as dwelling in ivory towers of academe. Attaining respect as problem solvers and innovators would be a giant step toward a new image for professors. The following suggestions are offered to assist professors in acquiring a new image for the twenty-first century.

Instructional Strategies and Techniques

Twenty-first century professors will need a larger repertoire of instructional strategies. Today's professors should have more knowledge about technology-the use of microcomputers programs, organized audiotape and color-slide presentations-and they should use games, simulations, and other modes of instruction that are in line with the objectives for the courses they will teach.

Each professor must also be aware of new insights into the nature and process of learning. The twenty-first century professor will learn the research findings relevant to education that involve both strong interactions with the science of human cognition and sophisticated analysis of instructional processes and classroom applications.

If professors want students to view their teaching as challenging, motivating, exciting, innovative, and personal, they must be able to use the latest electronic technologies to enhance lectures, lab experiments, and field studies. They should become skilled in the most effective teaching strategies and student-assessment techniques. the ability to link computers, video , and satellite television to lectures and group assignments is among the technological skills that professors need to master to bring the world into their classrooms-and themselves into the twenty-first century.

The development and refinement of interactive television loom large in the role

of the twenty-first century professors. The fact that students in remote locations can now see, hear, and talk to a professor and other students located hundreds of miles apart can revolutionize the post-secondary curriculum.

Of course, the most qualified instructors should teach the interactive television courses, and they must have the best in support resources if the courses are to be successful. Imagine students who don't have the money to travel and live on a university's main campus; they can save money and probably work part time in their home towns and cities while enrolling in basic required courses, and they can receive instruction from the very best teachers the university can offer.

Understanding How We Learn

Professors should engage the students in higher cognitive processes based on breakthroughs in brain and human-cognition research and development.

Brain researchers tell that the two sides of the brain process information somewhat differently and that both sides are important. Colleges have been focusing primarily on the left side of the brain: the verbal and analytic way of coping with the world. Professors of the twenty-first century will not ignore the intuitive, holistic world of hunches and patterns-the thinking that is beyond logic. They will rely on a body of evidence that the brain has unrealized capabilities of predicting trends and perceiving patterns when both hemispheres are fully used and coordinated. The "balanced brain" approach can help professors lead their students to stunning discoveries about forecasting and other futures-research methods.

This means professors will use testing and evaluation procedures that measure something more than the student's ability to recall facts. Professors can shift away from mundane, evermore specialized lectures to higher quality encounters with their students meetings into powerful experiences that deal with large, complex issues confronting technological and pluralistic societies. Students will learn to live and work within an international. independent world.

Twenty-first century professors must be more in tune with other state and national agencies and with business and industries. They should form collaborative efforts with personnel in other institutions. They will indeed be called upon to work within a flexible curriculum setting, which will be far more responsive to society's needs than the present-day curriculum. For example, the future will find classes increasingly filled with "adult" students training for occupations that haven't even been identified during the present century. In contrast to the present-day freshman, these older students will want more pragmatic courses, more practical suggestions, more relevant examples, more usable skills.

Faculty Development Programs

But all of the above will not emerge through wishful thinking. Twenty-first century professors will need special training.

Institutions of higher learning should establish goals for faculty and instructional-development programs. The goals must be obtainable, have credibility, and hold personnel accountable for their actions.

Because effective teaching is important, Texas A&M University has established the

University Center for Teaching Excellence to assist faculty members, teaching assistants, and administrators in maintaining and enhancing the quality of instruction. The functions of the Center include encouraging innovative teaching and assisting faculty members through workshops on teaching and through individual evaluation based on classroom observation or analysis of a videotape lesson. The Center also assists administrators and faculty members in the evaluation of curricula and informs faculty members of current issues affecting teaching in higher education.

Incentive grants have been one of the more successful activities of the Center. Each grant provides resources for a faculty member to explore some innovative phase of teaching. Many recipients of incentive grants have developed microcomputer programs for their students to pursue on an independent basis. One professor used a special microscope to make videotapes of live organisms in the Gulf of Mexico, which she then replayed during classroom sessions.

Institutions must make a strong public commitment to proposals for preparing twenty-first century professors. There appears to be a direct relationship between administrative involvement and commitment to innovations and the success level of those innovations. Comprehensive promotional efforts must be visible to prospective twenty-first century professors, and reward systems must be clearly stated if the institution hopes to entice personnel into training programs.

Quality leaders and quality personnel should be placed in charge of comprehensive efforts to develop workable faculty-development programs. They will need organizational skills, communication skills, and human-relation skills. They must be willing to take risks, and they must not have negative reactions when individuals or programs fail to reach projected levels of success.

These faculty-development leaders must engage in continuous data collection and evaluation of progress while implementing faculty development programs. Also, they must look for major problems, openly discuss potential solutions, be receptive to suggestions and modifications in the program, and reward experimentation. It is vital to recognize that there is no one way to conduct any specific program. The perfect system has never been developed. Faculty-development programs with visionary leadership can create improvement opportunities for all interested professors. The success of the programs rests with vice presidents, deans, and department heads who must recruit creative teachers

who will avail themselves to continuous renewal in exciting faculty-development activities. Students and the community will look up to professors who shed their boring and "absent-minded" images and become exciting, innovative professors for the twenty-first century.

About the Authors

John R. Hoyle is a professor of educational administration and coordinator of instructional management at Texas A&M University. He has written numerous articles on the future of education.

Glenn R. Johnson is a professor of educational administration and educational curriculum and instruction. He is also director of Texas A&M's Center for Teaching and Learning Excellence.

Their address is Texas A&M University. College of Education. College Station, Texas 77843.

WHAT CHARACTERIZES AN EXCELLENT PROFESSOR

Miami-Dade Makes a List

As part of its teaching and learning project, a committee of professors and administrators at Miami-Dade Community College set out to identify the "core fundamental characteristics" that define classroom excellence for a faculty member. Committee members agree that excellent professors:

- Are enthusiastic about their work.
- Set challenging goals for themselves.
- Set challenging performance goals for students.
- Are committed to education as a profession.
- Project a positive attitude about students' ability to learn.
- Display behavior consistent with professional standards.
- See students as individuals operating in a broader perspective beyond the classroom.
- Treat students with respect.
- Are available to students.
- Listen attentively to what students say.
- Are responsive to student needs.
- Give corrective feedback promptly to students.
- Are fair in their evaluation of student progress.
- Present ideas clearly.
- Respect diverse talents.
- Create a climate conducive to learning.
- Work collaboratively with colleagues.
- Are knowledgeable about their work.
- Integrate current subject matter into their work.
- Provide perspectives that include a respect for diverse views.
- Do their work in a well-prepared manner.
- Do their work in a well-organized manner.
- Are knowledgeable about how students learn.
- Provide students with alternative ways of learning.
- Stimulate intellectual curiosity.
- Encourage independent thinking.
- Provide cooperative learning opportunities for students.
- Encourage students to be analytical listeners.
- Give consideration to feedback from students and others.
- Provide clear and substantial evidence that students have learned.

Copyright 1988. The Chronicle of Higher Learning. Reprinted with Permission.

THE FIVE C'S OF THE LOCAL COORDINATOR:

An Editorial

When a distance education program requires students to meet at distance sites, a local coordinator is needed for that site and those students. A coordinator is almost essential in programs using real-time interactive technologies, which is what I have in mind during most of the following discussion. However, even programs designed for individual study and conducted primarily by correspondence, recorded audio or video, or by computer and modem will benefit from having local coordinators, especially if they hold group meetings at study centers, as is very common in open university systems.

When my class asked me recently to state the characteristics of a good coordinator, I listed five, all of which include a key word beginning with the letter "c." Here, then are the "Five Cs" of the good coordinator.

Communication

The first requirement of a site coordinator is the ability to communicate effectively with the instructor, the students, and the community in which the course is offered.

Effective communication with the instructor is the first and principal requirement for a good coordinator. Even if communication between the coordinator and the students or the coordinator and the larger community breaks down temporarily (which, of course, should not happen), when the instructor can trust the coordinator to relate fully what is happening, her or she can then give appropriate advice and assistance, and action can be taken to rectify the situation. While a coordinator can be invaluable in helping to design and teach the course and in numerous other ways, above all this person must be willing and able to communicate effectively about problems. The last thing the instructor wants is the insecurity that results from not knowing what may be going on at a distant site; the instructor must be absolutely confident that the coordinator will provide full information promptly, even when the news is not good.

Next the site coordinator must be able to communicate well with the students. Because the coordinator speaks on behalf of the instructor and acts as the instructor's eyes and ears to identify student problems and opportunities at a given site, he or she must be approachable and have the students' respect and confidence to be effective. Instructors need to be sure that students who wish to discuss a problem know how to contact the coordinator and feel sufficiently comfortable with the coordinator to do so. If the channel of communication between instructor and coordinator and students is equally effective, instructors can be sure that they will hear of individual student's needs as they arise.

The site coordinator must also have the ability to communicate with the local community. The coordinator usually initiates contact with the local newspapers, radio stations, and bulletin boards to spread information about a forthcoming course, and the coordinator is often the one approached by potential students with inquiries about taking the course. When the course is being planned, the coordinator arranges with local resource people to undertake production activities such as copying printed materials or making videotapes for class projects. Coordinators will negotiate the availability of rooms and teleconference equipment with administrators; they also may communicate with administrators about receiving payment of fees from colleges or corporations that enroll students in the course, as is often the case with foreign sites. Thus, the coordinator must be ready to alert instructors not only of student problems, but also of any difficulty with local administrators; after consultation, the coordinator can then intervene on the instructor's behalf.

Competence

Coordinators should be competent in attending to technical needs at the site, be competent in administration, and be competent instructional assistants. Technical competence means being able to either install instructional media or to negotiate and oversee the installation. With most media, no technicians are present at the time of instruction; the coordinators must set up the equipment, test it, and operate it. They must have sufficient technical knowledge to recognize potential problems that may occur during the course or during a particular session of the course in order to take appropriate preventive or remedial action. An unexpected but uncorrected technical failure can result in an abandoned session, loss of students' confidence, and ultimately, the collapse of an institution's presence in a site, a city, or a nation. This result could stem from an initially minor problem—perhaps just a loose telephone line—that could and should have been easily dealt with by a competent coordinator. Technical competence means being familiar with the hardware being used; helping to install, monitor, and test it; and knowing the appropriate actions to take (including calling for expert assistance) to deal with problems that may arise with it.

A coordinator must also be competent in handling administrative procedures: receiving and distributing materials to students, keeping records and reporting them to the instructor, and undertaking the administrative requirements of the institution that hosts the local class. Administrative procedures become especially demanding when working with foreign sites; the coordinator has to send materials through Customs and arrange for payment in a foreign currency.

A coordinator also should have some instructional competence. The instructor wants a coordinator who is able to discuss the course during its design stage and give input based on local perspectives and local needs. The coordinator may undertake pre-course instruction of locally enrolled students in the use of the media employed; this service is especially necessary for students with no previous experience with computer conferencing. Coordinators are indispensable during

the interactive stage of the course; for example, they ensure that instructions for the group discussions are properly understood and carried out. In this regard, the importance of the coordinator is most obvious when there are differences of language; even at English-speaking sites, coordinators must understand what the instructor is trying to do and be able to arrange local circumstances to ensure that the goal is achieved. In my teaching, after I have given directions to a local site, I do not ask the students if they understand the directions; rather this question is addressed to the site coordinators. The coordinators know that they must review the local situation and tell me if the students understand what is required of them. The coordinators understand what I am trying to do and can best determine whether the students are in need of help. If help is needed, the coordinator can act as an intermediary or can give the help directly. If the instructor's directions have not been clear, students may be diffident about saying so; good coordinators will have no such reservations.

Finally the coordinator should be relatively competent in the content being taught. When possible, persons who have previously taken the course as students should be appointed as coordinators; not only are they familiar with the instructional procedures and with the instructor, but they also know the subject matter better than do the newly enrolled students at their sites. This knowledge helps them to interpret the instructor's explanations or questions when the need arises and also to assist their students as they struggle to articulate their ideas.

Continuity

Distance teaching organizations and individual instructors, having recruited good local coordinators, should care for them well (which includes paying them well) to encourage them to continue in the role and to build up their experience in the field. This continuity is important for several reasons. First, considerable time and experience is needed to develop both the effective working relationships with the instructor and community and the competencies that have been described above. The course will progress much more efficiently when the instructor can send materials to a coordinator who has learned what to do with them in previous iterations of the course; additionally, making plans for a weekly program or discussing a problem student or an administrative difficulty is much easier with a colleague who shares memories of similar events in previous courses. Although each cohort of students consists of different individuals, their needs and problems are usually similar to those of previous cohorts. An experienced coordinator can identify problems and explain them to the instructor with reference to previous experience or may even be able to solve them locally without recourse to the instructor.

Control and Confidence

Good coordinators have control of events at the local site, and the students should have a comfortable awareness of this situation. Control results from the combining of the other characteristics described above. Equipment is set up in

advance of students' arrival at the site; administrative work is done quietly and efficiently; the instructor's communication with the coordinator reinforces the students' senses that the course is directed by a team that works together effectively. The atmosphere at the site should be relaxed and friendly, yet with a sense that events are will planned, that the program is progressing smoothly, and that any problems can and will be resolved. During class sessions the site coordinators, using a previously agreed-upon schedule, anticipate the instructor's directions; both coordinators and instructor handle any unexpected issues or problems calmly and competently. This sense of control is more important in a distant learning environment than it might be in conventional settings, since it is necessary to instill and reinforce confidence in students, some of whom may be unfamiliar with distance education. Many students initially are fearful as a result of being separated from the instructor, while others are skeptical about the seriousness of an educational environment in which there is no instructor present. To overcome these emotional barriers to learning, the site coordinators must project a sense of control, efficiency, responsibility, and authority. The instructor would reinforce this perception by doing what is necessary to encourage students' confidence in the coordinators. Interaction between the coordinators and the instructor should communicate to the students not only that any local problems can be solved, but also that the instructor has confidence in the ability of the coordinators to solve them, that there is immediate and continuous communication between them, and that the coordinators will receive whatever help is necessary to meet the needs of students at the distant sites.

Caring

Last, but not least in importance, the coordinator must be a person who cares for the emotional comfort of the students as well as for their academic success and achievement; the coordinator must also be able and willing to communicate this concern. The educator at a distance, no matter how skillful, will be unable to establish as good an affective relationship with students as is possible in a face-to-face environment. In fact, the instructor, being at a distance, is likely to be heavily burdened by students' anxieties about teacher authority, an attitude that they have inherited from their days at school. While the instructor should do everything possible to establish the open, communicative, friendly, and caring environment necessary for learning, the local coordinator must make up for what the instructor is unable to do. The coordinator accomplished this in numerous ways; by greeting participants; by ensuring that everyone has freedom to participate in discussions; by private conversation with anyone who is "bruised" during an oral exchange; or by voicing appreciation, approval, or congratulation for an individual's successes.

Caring, communicating, competent, confident, and continuing. Obviously, local coordinators are very valuable members of a distance education team.

Michael G. Moore; The American Journal of Distance Education Volume 9 Number 1 1995

THE LONELINESS OF THE LONG-DISTANCE LEARNER

This article is about adult education via ITV and radio. However, its emphasis is not on the technology of telecommunication. Instead it deals with a problem that Diane Dormant has labeled "the loneliness of the long-distance learner."

My experience with functional literacy through radio in developing nations, and esoteric enrichment through television in the developed nations, reveal a common factor among all consumers of mass education; they are lonely. In an attempt to avoid the inefficiencies of the conventional classroom, telecommunication has also thrown away the hidden strengths of traditional educational systems. The engineers have consistently disregarded feedback from the field and gone about creating solutions for nonexistent problems. If MPATI (Midwest Project on Airborne Televised Instruction), with an airplane that flew thousands of feet in sky and bounced back the broadcast, was a failure, then these telecommunication technologies have created an ATS-F (Applied Technology Satellite-F), to orbit thousands of miles in space to do just about the same thing. Producers of the educational message have not done any better, either. Basing the decision on body counts, they have concocted cute gimmicks against channel-switching. As a result, we have adult Sesame Streets that turn off the serious learner and patronize the public at their lowest common denominator. Some notable attempts provide a support system for students enrolled for credit; however, much more has to be done.

Two Faces of Learner Loneliness

Adult learners who watch educational television programs complain about two types of human interaction that they miss:

- Reassurances and reinforcement from an instructor, and
- Misery-sharing and mutual learning with their peers. (Curiously enough very few children make similar complaints about their educational television.

This is probably because they frequently watch the programs in groups or they have not acquired the need for interactive instruction or they are much more easily attracted by the intrinsic interest-value of the medium, or all of the above.)

So what if the learner is lonely? We are in the educational business and not in the organizational business and not in the organizational business. I am not pleading for a reduction of learner loneliness in order to sound humanistic, but to provide cost-effective, remote control curriculums. Because the learner misses the instructor, she or he is likely to miss the confidence, clarification, comfort, and commitment of a conventional classroom.

Confidence. Praise and personal feedback from an authority figure do wonders for the students self-image. A mature student may not need such feedback, but this type of student rarely needs educations through telecommunication.

Clarification. Not even the most experienced instructional developer can anticipate all the different ways in which learners get confused. A single, simple misunderstanding early in any learning process can frustrate the student for a long time. An instructor can efficiently and effectively unblock the learning process through a brief individualized remedial instruction.

Comfort. Even if a student never has occasion to use tutorial contacts with the teacher, it is reassuring to know that someone is available in case of instructional emergencies.

Commitment. If all instructional interactions were confined between the learner and the tube, even the highly-motivated person would postpone his or her assignments to pursue other distractions. Commitment to another human being-to the instructor-helps the learner take the instructional tasks seriously.

Because the learner misses the peers, she or he is likely to miss the companionship, comparison, collaboration, and competition of a conventional classroom.

Comparisons. In spite of the virtues of criterion-referenced testing, most human learners need to locate themselves in a norm-referenced space. Knowing how one's performance compares with that of one's peers is not a neurotic obsession but an essential element in acquiring a more realistic self-concept.

Collaboration. Even without a formal peer-tutoring program, considerable collaborative learning takes place in any group of students. Talking to each other in a classroom frequently results in gaining mutual insights and clarifications. Often students help each other more efficiently than an instructor can because they share a common language and learning.

Competition. An optimum level of competition creates powerful motivation for learning. Attempting to do better than the other learner is an individual, or the other class as a team, has been one of the hidden strengths of conventional classrooms.

Reducing Isolation in Learning

How can we reduce the loneliness of the long-distance learner and recapture the hidden assets of the classroom? This is not a simple problem with a single answer. However, the solution seems to lie in the direction of reassuring the teacher that personal contracts are possible with an interested instructor and communal companions. This tone can be built into the instructional program during its design, development, and revisions; it can be added on during dissemination and utilization.

Desirable Designs Techniques

Using a credible instructor. The televised course has to be associated with an affective, authoritative figures who project a personal touch; and if we can identify a charismatic content specialist, there is no need to hide her or his face. We do not want a continuous talking face, but we also do not want interminable, impersonal voice-overs.

Featuring friendly feedback. Effective instruction requires active learner response and appropriate feedback. Friendly instruction suggests that such feedback be in terms of how other learners have done. Rather than showing the correct response from a master performer, it is more desirable to show a number of average responses from typical learners.

Designing discussions and debates. A useful device for handling unanticipated learner problems and increasing the visibility of other learners is to follow up each televised lesson with a spontaneous discussion among learners. If these learners are unable to reconcile any major differences, the host-instructor may intervene.

Planning formative evaluation. Most televised instruction undergoes formative evaluation and revision of the content and the format. However, such evaluation seldom takes into account any aspect of the delivery system. Consequently, the effective learning of the tryout subjects (who have the undivided attention of many people) is seldom replicated in remote-training situations. Truly functional formative evaluation requires the addition of typical-use testing where the problems of the forlorn learner are identified and attended to.

Useful Utilization Techniques

Bringing out the big brother. Each individual learner working through a televised course should have the option of personal contact with an instructor. Such contact can be maintained in a variety of ways:

- The British Open University reputedly supports a large part of the national postal system so that no enrolled learner is ever lonely. Guidance and feedback letters have a number of advantages, but mail is slow and form-letters are impersonal.
- Cassette tapes permit conversational feedback with a greater degree of intimacy. However, they do not permit real-time dialogues.
- Telephone technology, with its toll-free lines, permits the instructor and learner to talk at regular, pre-scheduled times and during emergencies. Whenever the learner is baffled or the instructor is curious, it becomes possible to contact each other personally over the telephone.
- A local learning resource with an instructor/monitor permits all of the preceding techniques with the added option of face-to-face meetings.

Facilitating Friendships with Fellow Learners

Here are some utilization techniques that ensure interaction among learners.

- The course may begin with a local orientation meeting during which past and present learners can get acquainted with each other. The delivery system can also provide periodic, updated lists of learners.
- The design of the televised lessons (and of adjunct study guides) can strongly encourage and support team learning. Instruction can be structured to utilize functional aspects of peer tutoring and personalized systems of instruction (psi).
- Follow-up activities can encourage the learners to share and apply their skills and knowledge with friends and colleagues. For example simulation games and discussion guides can facilitate such sharing.

Mass Education by the Masses

Telecommunication Technology for mass education is not merely the hardware nor even the courseware but a complete system with human faces. Reducing the learning unit to the individual learner may be instructionally efficient in the short term but may not be motivationally effective in the long run. Suggestions for bringing back the talking face and the heterogeneous group may appear to be as anachronistic as the horse cavalry; however, we are not able to use even a small portion of the sophisticated hardware and the innovative instruction when very few people enroll in our broadcast courses. Maybe it is time to experiment with dissemination and bringing back the people.

Sivasailam Thiagarajan, Association of Educational Communications and Technology 1978.

Reprinted from Audiovisual Instruction, January, 1978.